Remarks

Claims 17-32 are pending in the Application. The Examiner is thanked for granting an interview with the Applicant's representative. The interview included a general discussion of the structural differences between the coupling device of this Application and that disclosed in the prior art of record. Also discussed was the particular structure of the retaining members and the tapered aspect of the housing's inner surface, and how these features were both inventive and non-obvious in view of the prior art. Indeed, the configuration of the retaining members and of the tapered inner surface (among other features) clearly distinguishes the Applicant's coupling device from others disclosed in the prior art. As will be further discussed below, these features contribute to a tight sealing engagement between the coupling device and a conduit (e.g., pipe) that prevents moisture from entering the conduit without compromising the conduit's integrity.

In addition, the structure and configuration of the retaining members and housing inner surface adds versatility to the coupling device insofar as they enable the Applicant's coupling device to accommodate and effectively retain conduits of various sizes. As a result, a single coupling device may be utilized in various implementations to couple conduits of varying sizes.

In an effort to expedite allowance, the Applicant has cancelled Claims 22, 24, and 31; and has amended independent Claims 17, 26, 27, 28 to clarify certain features. Support for these amendments may be found, for example, in Fig. 2 of the specification. It is important to note, however, that no new subject matter has been added as a result of these claim amendments. The claim amendments simply restate certain feature previously recited and already examined by the Examiner. Therefore, the Applicant requests entry of the claims, as amended, into

the Official Record. The Applicant has also amended several of the claims to correct certain formalities, as discussed in detail below.

Turning now to the extant Office Action, the Applicant acknowledges the Examiner's objection to the Specification as failing to provide a proper Abstract and proper title headings, improperly "incorporating by reference" a publication, and for making statements in the first person. In response to the objections, the Applicant has amended the Abstract to recite a concise statement of the technical disclosure by removing the "optional" language therefrom; the title headings have been amended and now appear in upper case, without underlining or bold type; the "incorporation by reference" has been removed; and the Specification has been amended to remove all first-party references (i.e., removal of "I" references).

The Applicant further acknowledges the rejection of Claims 17-32 under 35 U.S.C. 112 as being indefinite. In view of the foregoing claim amendments, the Applicant submits that this grounds of rejection is now moot. Specifically, the Applicant has amended independent Claims 17 and 26 to recite a coupling device in terms of its own components, and not in terms of a non-claimed, functional pipe. In addition, these claims were amended to clarify that the continuous layer that covers a portion of the outer surface and inner surface is indeed a continuous layer, and not two separate layers as interpreted by the Examiner.

The Applicant still further acknowledges the rejection of Claims 17-32 as being unpatentable over U.S. Patent No. 6,349,80 to Schwarz et al. ("Schwarz"). Schwarz is directed to a connecting element for corrugated pipes. According to Schwarz, the connecting element (1) includes a housing (3) having a *uniform* hollow core space (4) which includes a seal (12) disposed therein (see Fig. 1). In operation, one end of a corrugated pipe (2) is slid into the hollow core space (4) of the housing (3) and held in place by certain locking elements (not shown). According to Schwarz, when sliding the

pipe (2) in or pulling it out of the hollow core space (4), the seal 12 "...*cannot be deformed* into the housing." (emphasis added) [see col. 4, lines 16-19, see also col. 2, lines 38-49]. In this manner, a tight connection between the pipe and the inner shell of the hollow core space may be retained. [see col. 2, lines 38-49].

Unlike Schwarz, Claim 17 recites a housing having an inner surface that is "tapered substantially along its entire length." This tapering feature gives a substantial portion of the interior of the central bore a conical-type shape whose base diameter (e.g., the diameter at the opening of the housing (e.g., item 22 of Fig. 2)) is greater than the inner surface diameter of any subsequent cross-section of the housing that is axially opposed to the opening.

Disposed on at least a portion of the tapered inner surface (of Claim 17) is a continuous layer. This continuous layer also covers a portion of the outer surface of the housing, and the external ledge adjoining the outer and inner surfaces. As recited in Claim 17, this continuous layer "*deforms* along the tapered inner surface against an outside of a pipe that is inserted into the housing." (emphasis added).

The tapered nature of the housing inner surface, in combination with the continuous layer, provides distinct functional advantages over conventional, non-tapered or cylindrically-shaped inner housings. For one, the coupling device of Claim 17 may effectively be used to couple pipes having a range of diameters. When used with a first pipe having a first diameter, for example, the first pipe is advanced into the central bore of the device housing to a particular point in the until the pipe deforms a continuous layer disposed on the housing inner surface, thereby providing a sealing contact between the inner surface of the housing and the outside of a pipe. When used with a second pipe having a smaller diameter, the second pipe will be advanced further into the housing to a second

point to create a sealing contact with the continuous layer. In both implementation, an effective and tight sealing contact between the inner surface and the outside of the pipe is achieved.

Schwarz, in sharp contrast to Claim 17, fails to disclose or even suggest a *tapered inner surface* or *deforming a continuous layer*, and as a result, is limited for use with a particularly-sized pipe. In fact, Schwarz teaches away from a tapered inner surface and from deforming a continuous layer. According to Schwarz, the interior of its hollow core (4) is uniform and lined with a seal (12). In this manner, Schwarz is able to achieve a continuous seal along the sides of the pipe (see Fig. 1 and col. 4, lines 11-18). Schwarz also explicitly prohibits the deformation of its seal (12) by a pipe, "...the seal is not deformed when sliding the pipe into or out of the hollow core space..." (see col. 2, lines 44-46 of Schwarz).

Since the Schwarz device requires a uniform hollow core (4) lined with a seal (12), and explicitly forbids deforming the seal (12), it will be appreciated that the Schwarz device may only be utilized with a particularly-sized pipe (2). Indeed, if a slightly larger pipe were used, the seal (12) would be deformed, and if a slightly smaller pipe were used, the seal (12) would not be able to effectively contact the sides of the pipe. As a result, and unlike Claim 17, the configuration of Schwarz prevents its use with pipes of varying diameters.

Claim 17 also recites one or more retaining members, each having a *retaining surface that is tapered substantially along its entire length*. This tapered retaining surface, in conjunction with the tapered inner surface of the housing, provides a sealing contact with a pipe that is advanced into the housing of the Claim 17 device.

Schwarz, in sharp contrast, discloses locking elements disposed in recesses (15) of the housing (3) for engaging with locking ribs of the corrugated pipe (2). (see col. 3, lines 35-40). These locking elements, however, are not tapered, as in Claim 17. In fact, no details as to their particular

configuration is provided in Schwarz. As a result, it is impermissible to rely on these locking elements as forming the basis for rejecting the claims of this Application.

Schwarz also fails to disclose a continuous layer disposed on a part of the outer surface, a part of the inner surface, and the external ledge adjoining the outer and inner surfaces of the housing. Instead, Schwarz discloses multiple separate layers (12) each disposed on the interior of the housing core (4). None of the seals (12) of Schwarz are continuous or disposed on an outer housing surface or adjoining ledge.

Therefore, for at least those reasons discussed above, the Applicant respectfully submits that Claim 17 is fully patentable over Schwarz. Claims 18-21, 23, 25-30, and 32 recite features similar in Claim 17 and are therefore fully patentable over Schwarz for similar reasons.

In view if the foregoing, the Applicant submits that the entire Application is now in condition for allowance, which action is earnestly solicited. Should the Examiner determine that a further discussion with the Applicant's representative would be helpful in advancing this case, the Examiner is invited to contact the undersigned at his convenience.

Respectfully submitted,

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